

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A plasma generating electrode comprising:
at least a pair of unit electrodes disposed at a predetermined interval and capable of generating the plasma,
each of the pair of unit electrodes including a plate-shaped ceramic body as a dielectric and a conductive film disposed inside the ceramic body and including a plurality of protrusions having a predetermined thickness and arranged in a predetermined pattern on one surface,
a plurality of conductive film through-holes formed on the conductive film,
the pair of unit electrodes (upper unit electrode and lower unit electrode) constituting one basic unit by being hierarchically layered at intervals corresponding to thickness of the protrusion in a state that a plurality of spaces which are open on each end in an arrangement direction of the protrusion are formed by a front surface of one unit electrode (lower unit electrode) of the pair of unit electrodes, surfaces of the protrusions disposed on the front surface, and a back surface of the other unit electrode (upper unit electrode),
the basic units being hierarchically layered at intervals corresponding to the thickness of the protrusion and constituting an electrode unit in which the unit electrodes and the spaces are three-dimensionally arranged, and
the plasma generating electrode being capable of generating the plasma in the three-dimensionally arranged spaces upon application of voltage between the unit electrodes constituting the electrode unit.
2. (Previously Presented) The plasma generating electrode according to claim 1, wherein, in a state that, on a front surface side of the basic unit having a shape in which a

margin is added to an external shape of the unit electrode, a plate-shaped protrusion formation frame having almost the same external shape as an external shape of the basic unit, having the same thickness as the thickness of the protrusion, and having a plurality of through-holes whose one side parallel to the arrangement direction of the protrusion is equal to or longer than a length of the protrusion and whose one side perpendicular to the arrangement direction of the protrusion is the same as the arrangement interval between the protrusions is disposed, the unit electrodes and the spaces which are open on each end in the arrangement direction of the protrusion are formed by cutting the basic unit and the protrusion formation frame at positions corresponding to the ends of the spaces along a plane almost perpendicular to the front surface of the basic unit.

3. (Previously Presented) The plasma generating electrode according to claim 1, wherein the basic unit includes a first conduction through-hole and a second conduction through-hole which are formed through the basic unit in a vertical direction from regions on its top surface other than an arrangement region of the protrusions in a state that the first conduction through-hole and the second conduction through-hole are in contact with at least a part of one of the conductive films disposed in the upper unit electrode and the lower unit electrode, and

electrical conduction can occur from the top surface to a bottom surface of the basic unit through the first conduction through-hole, the second conduction through-hole, and the conductive film.

4. (Original) The plasma generating electrode according to claim 3, wherein the basic unit includes conductive films (first through-hole conductive film and second through-hole conductive film) disposed on inner walls of the first conduction through-hole and the second conduction through-hole, and electrical conduction can occur from the top surface to the bottom surface of the basic unit by allowing the first through-hole conductive film and the

second through-hole conductive film to be in contact with the conductive films disposed in the upper unit electrode and the lower unit electrode.

5. (Previously Presented) The plasma generating electrode according to claim 1, wherein the conductive films disposed in the upper unit electrode and the lower unit electrode constituting the basic unit extend to both ends of the basic unit in a direction perpendicular to the arrangement direction of the protrusion,

the basic unit includes conductive films (first end face conductive film and second end face conductive film) disposed on end faces on the both ends, and electrical conduction can occur from the top surface to the bottom surface of the basic unit by allowing the first end face conductive film and the second end face conductive film to be in contact with the conductive films disposed in the upper unit electrode and the lower unit electrode.

6. (Previously Presented) The plasma generating electrode according to claim 1, wherein an opening percentage is 20% or more.

7. (Previously Presented) The plasma generating electrode according to claim 1, wherein the thickness of the unit electrode is 0.1 to 5 times the interval corresponding to the thickness of the protrusion.

8. (Previously Presented) The plasma generating electrode according to claim 1, wherein a width of the protrusion is 0.1 to 5 times the interval corresponding to the thickness of the protrusion.

9. (Previously Presented) The plasma generating electrode according to claim 1, wherein a distance between adjacent protrusions is 0.2 to 20 times the interval corresponding to the thickness of the protrusion.

10. (Previously Presented) A plasma reactor comprising the plasma generating electrode according to claim 1, wherein, when gas containing predetermined components is introduced into the spaces three-dimensionally arranged between the unit electrodes

constituting the plasma generating electrode (electrode unit), the plasma reactor is capable of causing the predetermined components in the gas to be reacted by plasma generated in the spaces.

11. (Previously Presented) The plasma generating electrode according to claim 1, wherein a diameter of the conductive film through-hole is 0.5 to 10 mm.

12. (Currently Amended) The plasma generating electrode according to claim 1, wherein a length of outer periphery of the conductive film through-hole ~~per unit area~~ is 0.05 to ~~1.7 mm/mm²~~; 1.7 mm per 1 mm².

13. (Currently Amended) The plasma generating electrode according to claim 1, wherein an area of the conductive film having the conductive film through-hole ~~per unit area~~ is 0.1 to ~~0.98 mm²/mm²~~; 0.98 mm² per 1 mm².